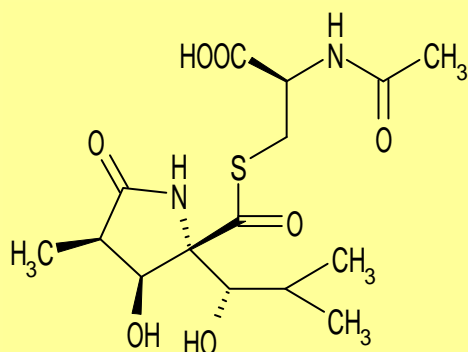


Lactacystin

Cat.# BLK0460

Structure

**Origin:** *Streptomyces lactacystinnaeus* OM-6519**CAS Registry Number:** 133343-34-7**CA Index Name:** (2R)-2-(Acetylamino)-3-[[[(2R)-3β-hydroxy-4β-methyl-2-[(S)-1-hydroxy-2-methylpropyl]-5-oxopyrrolidine-2-yl]carbonylthio]propanoic Acid**Appearance:** white powder**Molecular Formula/ Weight:** C₁₅H₂₄N₂O₇S=376.13**Melting Point:**

236-238

Purity: >98.0% by HPLC**Solubility:** Sol. in DMSO, MeOH, EtOH, Pyridine, water
Inso. in Hexane, Benzene, Chloroform, EtOAc**pKa:****log P:** -1.1**Background Information:**

Biological activity: 1) Lactacystin inhibits cell cycle progression and induces neurite outgrowth in Neuro 2a cells. 2) Inhibits proteasome activity. Proteasome exhibits three protease activities of the tree, Lactacystin inhibits chymotrypsin-like activity most potently, followed by trypsin-like activity, but its inhibitory activity against peptidylglutamylpeptide hydrolytic activity is relatively weak.

Handling and Storage:

Store at -20 .

References:

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Manufactured with Cortesy strain from The Kitasato Institute.